

A NEW INTERTIDAL FLY FROM CALIFORNIA, WITH
NOTES ON THE GENUS NOCTICANACE MALLOCH

(Diptera: Canaceidae)

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Since the publication of my revision of the family Canaceidae (Wirth, 1951), I have received some additional material, including a fine series representing an undescribed species of *Nocticanace* Malloch. A description of the new species is presented here, the status of *Nocticanace* is clarified, and some new American distribution records for this genus are added.

Genus NOCTICANACE Malloch

Nocticanace Malloch, 1933, B. P. Bishop Mus. Bull., 114:4; Wirth, 1951, Occas. Papers B. P. Bishop Mus., 20:269; Wheeler, 1952, Ent. News, 63:91.

Because Malloch's paper, as stated in a footnote, was issued as Pacific Entomological Survey Publication 7 on February 27, 1933, *Nocticanace* should date from 1933, and not from 1935, the date when the complete volume of Bulletin 114 was assembled. Neave's Nomenclator Zoologicus and the Zoological Record both erroneously give the date as 1935 and the citation given in my paper was not clear. Most of this information has been correctly cited by Wheeler (1952), who is of the opinion that *Nocticanace* is very likely the same as *Canaceoides* Cresson, 1934, in which case Malloch's name has priority.

As suggested by Wheeler, the characters separating *Canaceoides* and *Nocticanace* do not seem to be very strong, and the new species here described brings the two groups closer together. One cannot very well merge these two genera, however, without considering also the close ties which I have already pointed out (1951, p. 264) between *Canaceoides* and *Canace* exhibited through *Canace maritima* Wirth. Until more species are known, I believe it most practical to retain the narrower generic concepts and in the following discussion I will point out a combination of characters suitable for the differentiation of *Canaceoides* and *Nocticanace*. In any event, the ensuing new combinations will have to be made, in view of the priority of *Nocticanace*.

Nocticanace arnaudi Wirth, new species

(Figure 1, a)

Male, female: Body length of male about 3 mm., of female 3.5 mm.;

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wing 3.7 mm. by 1.4 mm. Color opaque black, dorsum black tinged with brownish; antennae and palpi brownish black; face and cheeks pruinose, pearly gray when viewed from above, brownish from below; humeri, pleura, legs and abdomen dark brown, with pruinose gray lights; wings and squamae opaque brownish with dark veins; halteres whitish.

Frons broader than long, flat in front over eyes, ocellar prominence well-developed, brownish in color, with 10-15 fine hairs. Three strong fronto-orbitals, the intervening hairs long and fine; one pair of strong proclinate interfrontals; ocellars strong; inner and outer verticals strong; postverticals absent. Face bare, median carina strong between antennae. Cheeks each with three strong bristles, the inner one directed mesad, the outer two upcurved, with a small hair about half as long out of line below the lateral pair by half the distance between their bases. Third antennal segment slightly broader than long; arista short pubescent. Palpus with 1-4 apical hairs.

Thorax on each side with four strong dorsocentrals, one strong humeral, a strong posterior notopleural and an anterior one half as long, one strong presutural, two strong supra-alars; humeri and anterior margin of mesonotum except between dorsocentral lines with strong, erect setae, rest of mesonotum bare. Scutellum with four strong marginals, the disc bare. Mesopleura with numerous, scattered, long hairs and setae, sternopleura each with a long fine hair and a few scattered setae. Legs with numerous, stout, curved hairs, these short except the posteroventral series on fore femora; tarsi with distal segments markedly flattened.

Abdomen with scattered, long erect hairs. Eighth tergite of female with two, long, lateral hairs reaching apices of genital lamellae and four or five fine hairs about half as long between; eighth sternite also with a few long, fine hairs; dorsal lamellae of ovipositor stout, upcurved, each with two stout, black, apical spines and about three smaller, brownish, preapical ones on dorsal side. Ninth tergite of male (fig. 1, a) with the ventral processes each broadly attached at base, ventral margin with numerous fine hairs, apex prolonged in a slender, straight, fingerlike, external lobe bearing only microscopic setulae; a shorter, broader, inner lobe present on the dorsal margin of the ventral processes hidden by the subapical lobe. Numerous, stout, vent

Holotype ♂, at
FORNIA, February

bristle; the disc of the scutellum bare rather than with a pair of small bristles; the eighth tergite of the female with two long hairs in the marginal row reaching the apices of the ovipositor lamellae rather than with a row of small subequal hairs and in the structure of the male genitalia (compare figure 1, a, with figure 5, c, of *nudata* in Wirth, 1951). These are actually the only characters which can be relied on to separate the genera *Nocticanace* and *Canaceoides*. I believe that for generic separation, emphasis should be placed on these characters, rather than on the condition of the anterior notopleural, which is absent in most species of *Nocticanace*, weak in *Canaceoides* and in *N. arnaudi* and strong in *N. chilensis* (Cresson).

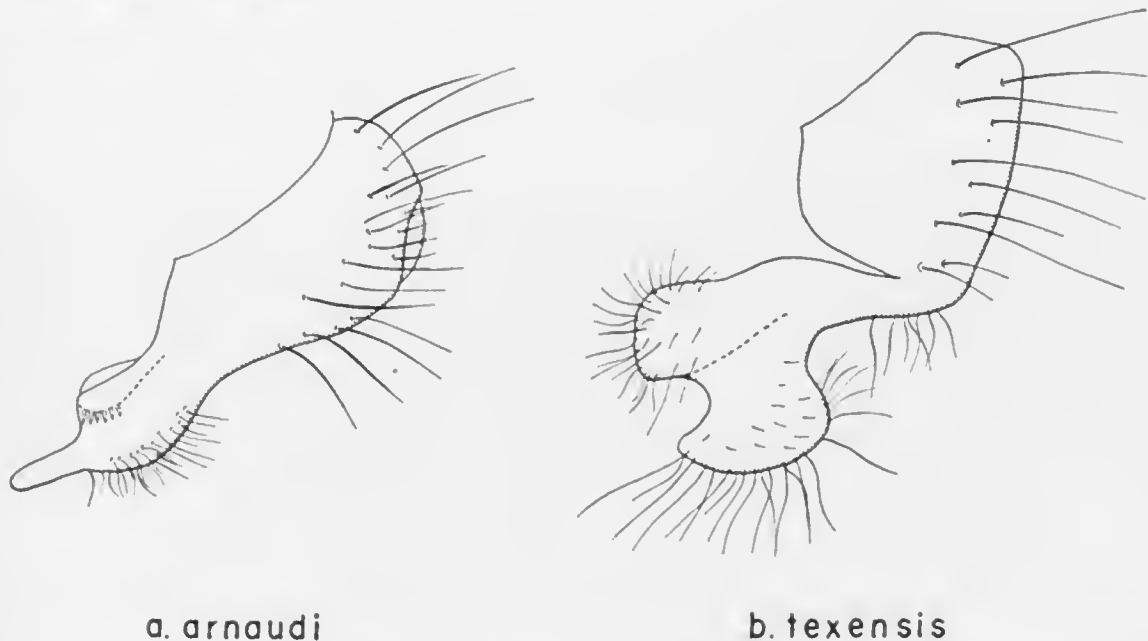


Figure 1. Male genitalia of *Nocticanace*, lateral views of ninth tergite. a, *N. arnaudi*, n. sp.; b., *N. texensis* (Wheeler).

NOCTICANACE CHILENSIS (Cresson), new combination

Canace chilensis Cresson, 1931, Dipt. Patagonia and S. Chile, 6:116.

Canaceoides chilensis, Cresson, 1934, Trans. Amer. Ent. Soc., 60:221; Wirth, 1951, Occas. Papers B. P. Bishop Mus., 20:269.

New record: Panama, Canal Zone, February 10, 1939, C. H. Richardson, 1 ♂.

This is the first record of *N. chilensis* from outside of Chile. This species belongs in *Nocticanace* rather than *Canaceoides* because of the absence of hairs on the disc of the scutellum, the presence of two elongate hairs on the eighth tergite of the female and the presence of small secondary hairs between and below the long genal bristles. Since there are from three to six strong genals

in *chilensis*, I believe that the presence of the smaller, secondary hairs is a better generic character than the actual number of strong genals. The presence of two equally strong notopleurals in *chilensis* limits the use of this character in generic differentiation.

NOCTICANACE TEXENSIS (Wheeler), **new combination**

(Figure 1, b)

Canaceoides texensis Wheeler, 1952, Ent. News 63:92 (♂ ♀, Galveston, Texas.)

New records: Boynton Beach, Palm Beach County, Florida, August 10, 1951, W. W. Wirth, 8 ♂♂, 8 ♀♀; Mona Island, Puerto Rico, August 6, 1939, L. F. Martorell, 1 ♀ (all in U.S.N.M.).

The Florida specimens were collected from a shelf of limestone rock about a hundred yards long on the Atlantic Ocean beach. This rock projected from the water only at low tide and was covered with a scanty growth of filamentous green algae. Through the kindness of Dr. Wheeler I have compared these specimens with a female paratype of *texensis* with which they agree well. The small, out-of-line, fourth genal, the absence of hairs on the disc of the scutellum, the absence of the anterior notopleural and the presence of the pair of long hairs on the eighth tergite of the female will place this species in *Nocticanace* rather than *Canaceoides*. In fact this species is practically indistinguishable from *N. peculiaris* Malloch, the genotype of *Nocticanace*, differing mainly in that the body is not quite so dark, the palpi are yellowish rather than brown and the two anterior genal bristles are more closely approximated and lack the fine seta below and between which is found in *peculiaris*. The male genitalia of *texensis*, which have not been described, have the ninth tergite (figure 1, b) with the ventral processes semidetached, each greatly expanded distally into two setose lobes, the outer or dorsolateral lobe thumblike, bearing dense, long setae except on the lateral surface; the ventromesal lobe in the form of a flattened, rounded lamella bearing dense, very long setae on the inner surface.

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